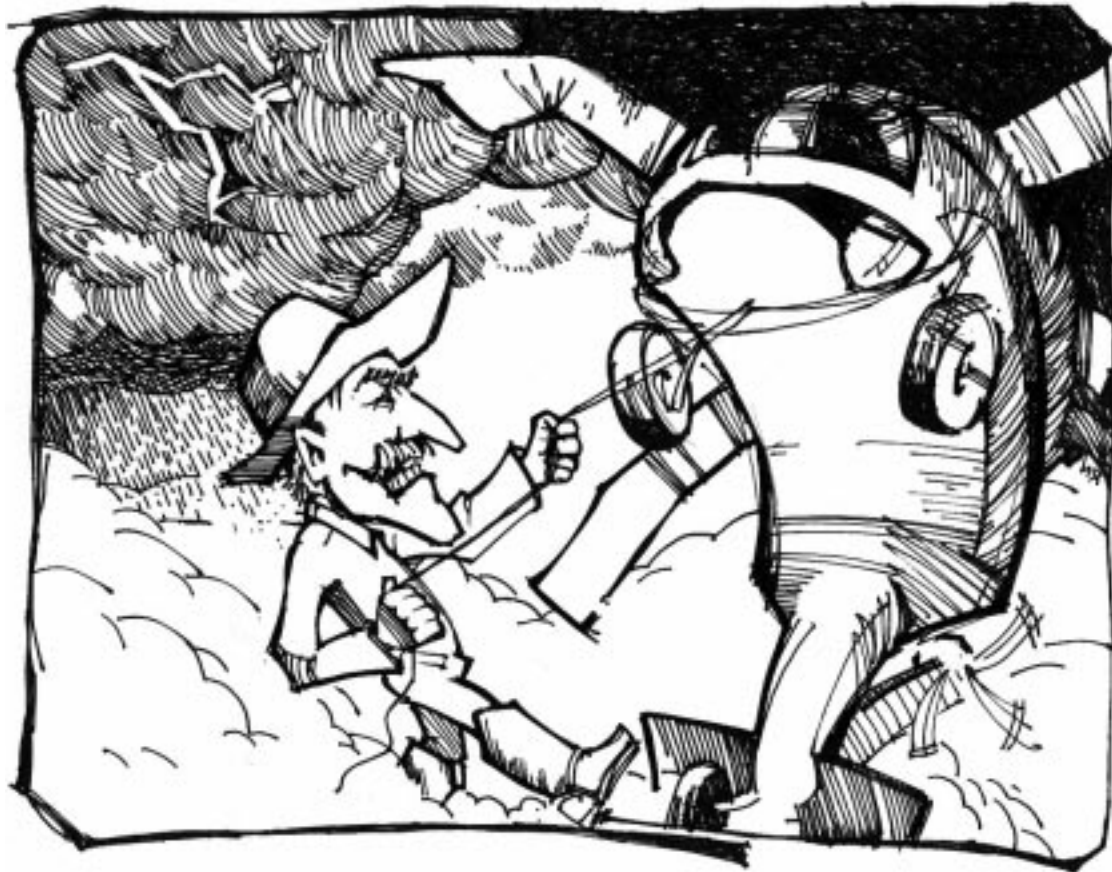


No procedures exist that can guarantee safe flight through a thunderstorm. The safest course is always away from the known thunderstorm area.



AVOID THE STORM!

Never land or take off in the face of an approaching thunderstorm. A sudden gust front of low-level turbulence could cause loss of control.

Never fly under a thunderstorm, even if you can see through to the other side. Turbulence and wind shear under the storm could be disastrous.

Never fly without airborne radar into a cloud mass containing scattered embedded thunderstorms.

Remember that *appearance* is not a reliable indicator of the turbulence inside a thunderstorm.

Stay at least 20 miles away from any thunderstorm identified as severe or that produces intense radar echo.

Clear the top of a severe thunderstorm by at least 1,000 feet for each 10 knots of windspeed at the cloud top.

Circumnavigate the entire area if the area has 6/10 thunderstorm coverage.

Remember that vivid and frequent lightning signals a severe thunderstorm.

Regard as extremely hazardous any thunderstorm with tops 35,000 feet or higher.



♦ ♦ ♦ BUT IF YOU CAN'T ♦ ♦ ♦

Tighten your safety harness and secure all loose objects.

Plan and hold your course; keep your eyes on your instruments.

Establish a penetration altitude, either below freezing level or above minus 15°C to avoid critical icing.

Verify that pitot heat is on, and turn on carburetor heat or jet engine anti-ice. Icing can be rapid at any altitude and can cause almost instantaneous power failure.

Establish and maintain power settings recommended for turbulence penetration airspeed.

Maintain constant attitude, but let the aircraft "ride the waves". Maneuvering to maintain constant altitude increases stress on the aircraft.

Turn up cockpit lights to highest intensity to reduce temporary blindness from lightning.

Disengage altitude-hold and speed-hold modes if using auto pilot. Their use will increase aircraft maneuvers, increasing structural stress.

Tilt airborne radar antenna up and down occasionally to detect thunderstorm activity at other altitudes.

Don't turn back. Maintain a straight course through the storm.

Each new plateau of risk,
when first attained,
seems to be the last; but,
as we grow accustomed to
it, a new horizon beckons.

What insulates us from
fear as we approach
the danger is simply habit,
the familiarity of a point
we have reached and
all the points we've
left behind.

Until one steps too far,
it's often hard to tell
the difference between
RECKLESSNESS and **SKILL.**